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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/991,501	11/16/2001	Gerald Eugene Tornquist	H0002284	7676

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HONEYWELL INTERNATIONAL INC.  
101 COLUMBIA ROAD  
P O BOX 2245  
MORRISTOWN, NJ 07962-2245

EXAMINER

ELKASSABGI, HEBA

ART UNIT	PAPER NUMBER
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2834

DATE MAILED: 09/22/2003

Please find below and/or attached an Office communication concerning this application or proceeding.

# Office Action Summary

Application No.

09/991,501

Applicant(s)

TORNQUIST ET AL.

Examiner

Heba Elkassabgi

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --  
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

## Status

- 1) ☒ Responsive to communication(s) filed on 07 February 2003.
- 2a) ☒ This action is FINAL. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

## Disposition of Claims

- 4) ☒ Claim(s) 1,2,4-6 and 8-16 is/are pending in the application.
- 4a) Of the above claim(s) 3,7 is/are withdrawn from consideration.
- 5) ☒ Claim(s) 1,2,4-6 and 8 is/are allowed.
- 6) ☒ Claim(s) 9,10,14 is/are rejected.
- 7) ☒ Claim(s) 11-13,15 and 16 is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

## Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on \_\_\_\_\_ is: a) ☐ approved b) ☐ disapproved by the Examiner.  
If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

## Priority under 35 U.S.C. §§ 119 and 120

- 13) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).  
a) ☐ All b) ☐ Some \* c) ☐ None of:  
1. ☐ Certified copies of the priority documents have been received.  
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.  
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).  
\* See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).  
a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

## Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892) 4) ☐ Interview Summary (PTO-413) Paper No(s). \_\_\_\_\_
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948) 5) ☐ Notice of Informal Patent Application (PTO-152)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449) Paper No(s) \_\_\_\_\_ 6) ☐ Other: \_\_\_\_\_

## **DETAILED ACTION**

### ***Claim Rejections - 35 USC § 112***

The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter that the applicant regards as his invention.

Claims 5 and 9 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention. The term "substantially" in the claim is vague and indefinite. The claim should be disclosed in a manner as to enable any person in the skilled art to set forth the best mode that is contemplated by the applicant in a full, clear, concise, and exact terms

### ***Claim Rejections - 35 USC § 103***

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claim 9,10 and 14 are rejected under 35 U.S.C. 103(a) as being unpatentable over Johnsen (U.S. Patent 5587616) and further in view of Leslie (U.S.P.Application 2002/0063482).

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Johnsen (5587616) discloses in Figure 1, a generator having a central bore and a circular end wall (80a) that is circumferentially surrounded by an annular flange with a pair of end cap openings (200) in the end wall (80a) and a manifold on the end cap. However, Johnsen does not provide an end cap with openings at 90 degrees.

Leslie disclose in Figure 7 an end cap of a generator having openings at 90 degrees to one another and arranged circumferentially around the end cap, in order to insert bolts for holding the end cap onto the generator.

It would have been obvious to one of ordinary skill in the art to combine the stator structure of Johnsen with the openings of Leslie in order to insert bolts to hold the end caps on to the generator.

### ***Allowable Subject Matter***

Claims 1-2,4-6, 8, 11,12,13,14 and 8 are allowed over the prior art.

Claims 11,12,13,15 and 16 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims. In regards to claim 11 prior art does not disclose an end cap having a cooling medium feed port between the openings in each in each pair of paired end cap openings. In regards to claim 12 prior art does not disclose a pair of end cap openings arranged along a radial line in the end wall and at least one of the openings in each pair serves as a cooling medium feed port. In regards to claim 13 prior art does not disclose an end cap having raised peripheral edge

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having a plurality of circumferentially spaced openings provided therein for selective insertion of weights to help balance the generator. In regards to claim 15 the prior art does not disclose that a central bore and an annular flange are shrunk fit around a shaft of a rotor and over the axial ends of the support wedges. In regards to claim 16 the prior art does not disclose that at least one radial cooling medium gallery extends to at least one supply port that is formed in the support wedge.

The following is an examiner's statement of reasons for allowance: In regards to independent claims 1 and 8 the prior art discloses a multi-pole generator comprising of a stator, a rotor, a shaft, a plurality of poles on the rotor with end caps mounted onto the rotor, and a shaft having an axial bore with at least one orifice at each end of the shaft. However, in regards to claim 1 the prior art does not disclose a rotor assembly having at least one support wedge having at least one supply port in each end open to at least one axial channel in at least one support wedge and each of the end caps restraining at least one support wedge from radially outward movement and extending from at least one orifice at each of the first and second ends of the shaft for circulating a cooling medium between the shaft and at least one support wedge to cool the rotor assembly during operation. In regards to claim 8 the prior art does not disclose a rotor having at least one support wedge positioned between each of the poles and at least one support wedge having at least one inlet supply port and at least one outlet supply port to at least one axial channel in at least one support wedge and a first end cap that is disposed over a first axial end of at least one support wedge and having radial fluid flow galleries that extend from at least one orifice at the second end of the shaft through which fluid

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exits the shaft to at least one inlet supply port in each of the at least one support wedge and a second end cap disposed over a second axial end of the at least one support wedge and having radial fluid flow galleries extending from the at least one outlet supply port in at least one support wedge to at least one orifice at the first end of the shaft through which fluid enters the shaft before exiting the rotor.

Any comments considered necessary by applicant must be submitted no later than the payment of the issue fee and, to avoid processing delays, should preferably accompany the issue fee. Such submissions should be clearly labeled "Comments on Statement of Reasons for Allowance."

### ***Response to Arguments***

Applicant's arguments with respect to claims 1-2, 4-6,8-16 have been considered but are moot in view of the new ground(s) of rejection.

### ***Conclusion***

Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within

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TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Heba Elkassabgi whose telephone number is (703) 305-2723. The examiner can normally be reached on M-Th (6:30-3:30), and every other Friday.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Nestor Ramirez can be reached on (703) 308-1371. The fax phone number for the organization where this application or proceeding is assigned is (703) 872-9306.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (703) 308-1782.

HYE



9/8/03

DANGLE  
PRIMARY EXAMINER